

$^{142}\text{Tb}$        $Z = 65$        $N = 77$       adopted link      ENSDF link

Based on ENSDF from Oct 2022, and mass evaluation from 2020

BE = 1151.834 ( 0.701) MeV

Qbeta+ = 10.400 ( 0.701) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-2.765	( 0.701)	-----		
142TB 1	0.000	1+			1 597 MS 17
142TB 2				0.182 (2+)	2
142TB 3				0.212 (3+)	3
142TB 4			0.280 5-		4 303 MS 17
142TB 5				0.312 (5-)	5
142TB 6			0.396 6-		6
142TB 7			0.477 6-		7
142TB 8			0.615 7-		8
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S-p	= 0.624	( 0.701)	-----		
142TB 9	0.652	8+			9 26 US 1
142TB 10				0.710	10
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142TB 11				0.844	11
142TB 12				0.852	12
142TB 13	1.019	9+			13
142TB 14				1.117 (9-)	14
142TB 15	1.209	10+			15
142TB 16				1.245	16
142TB 17				1.558	17
142TB 18				1.648 (11+)	18
142TB 19				1.790 (11-)	19
142TB 20				1.832	20
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142TB 21	1.969	12+			21
142TB 22				2.246	22
142TB 23				2.437 (13+)	23
142TB 24				2.539	24
142TB 25				2.567 (13-)	25
142TB 26				2.847 (14+)	26
142TB 27				2.968	27
142TB 28				3.285	28
142TB 29				3.339 (15-)	29
142TB 30				3.700 (16+)	30
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142TB 31				4.017	31
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S-2p	= 4.151	( 0.702)	-----		
142TB 32				4.530 (18+)	32
142TB 33				4.806	33
142TB 34				5.726	34

142TB	35				6.786	35
142TB	36				7.988	36

S-p = 0.624 ( 0.701)-----  
 S-n = 10.090 ( 0.708)-----  
 S-2p = 4.151 ( 0.702)-----  
 S-2n = 22.220 ( 1.064)-----  
 S-alpha= -2.765 ( 0.701)-----

S+p = -2.898 ( 0.701)  
 S+n = -11.931 ( 0.702)  
 S+2p = -2.628 ( 0.701)  
 S+2n = -21.951 ( 0.701)  
 S+alpha = 2.896 ( 0.701)

gap p = -2.274 ( 0.991)  
 gap n = -1.841 ( 0.998)  
 gap 2p = 1.524 ( 0.992)  
 gap 2n = 0.269 ( 1.274)  
 gap alpha = 0.131 ( 0.991)